WEST Search History

DATE: Wednesday, May 15, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=AND			
L23	L22 and treatment	20	L23
L22	L21 and infection	25	L22
L21	L5 and bacterial	42	L21
L20	L5 and botulinus	0	L20
L19	L16 and treatment	15	L19
L18	l17 and treatment	0	L18
L17	L5 and cholera	4	L17
L16	L5 and diarrhea	19	L16
L15	L13 and botulinus	0	L15
L14	L13 and cholera	0	L14
L13	l5 and treatment	170	L13
L12	L5 and enterotoxin	0	L12
L11	L9 and resin	10	L11
L10	L9 and silica and gel	27	L10
L9	l5 and purification	53	L9
L8	L7 and grape	14	L8
L7	L6 and plant	34	L7
L6	L5 and isolation	41	L6
L5	proanthocyanidin	339	L5
L4	L3 and proanthocyanidin	1	L4
L3	L2 and ADP	1079	L3
L2	L1 and ribosylation	1130	L2
L1	inhibitor	208962	L1

END OF SEARCH HISTORY

WEST Search History

DATE: Wednesday, May 15, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=AND			
L9	L8 and proanthocyanidin	0	L9
L8	L7 and treatment	2981	L8
L7	tetanus	3932	L7
L6	L5 and proantocyanidin	0	L6
L5	L4 and treatment	2343	L5
L4	pertussis	3329	L4
L3	L2 and proanthocyanidin	0	L3
L2	L1 and treatment	634	L2
L1	diptheria	730	L1

END OF SEARCH HISTORY

Generate Collection

L19: Entry 14 of 15 File: EPAB Apr 23, 1998

PUB-NO: WO0009816111A1
DOCUMENT-IDENTIFIER: WO 9816111 A1
TITLE: ENTERIC FORMULATIONS OF PROANTHOCYANIDIN POLYMER ANTIDIARRHEAL COMPOSITIONS

PUBN-DATE: April 23, 1998

INVENTOR-INFORMATION:
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KHANDWALA, ATUL S
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SHAMAN PHARMACEUTICALS INC US

APPL-NO: US09718845
APPL-DATE: October 14, 1997

PRIORITY-DATA: US73077296A (October 16, 1996)

INT-CL (IPC): A01 N 65/00; A01 N 31/08; A61 K 9/48; A61 K 9/20; A61 K 9/22; A61 K 9/28
EUR-CL (EPC): A61K031/35; A61K009/28, A61K009/50 , A61K031/765

ABSTRACT:

CHG DATE=19990617 STATUS=O>Pharmaceutical compositions containing a proanthocyanidin polymer composition which are useful for the treatment and prevention of secretory diarrhea are provided. The invention specifically relates to pharmaceutical formulations of a proanthocyanidin polymer composition which has been isolated from a Croton spp. or a Calophyllum spp. In particular, the invention relates to a formulation of a proanthocyanidin polymer composition which protects the composition from the effects of stomach acid after oral administration, particularly to those formulations which are enteric coated. Methods for use of the formulations as well as methods for use of the proanthocyanidin polymer composition in combination with an effective amount of a compound effective either to inhibit secretion of stomach acid or to neutralize stomach acid are disclosed.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s inhibitor
      379881 INHIBITOR
      401899 INHIBITORS
L1    619425 INHIBITOR
             (INHIBITOR OR INHIBITORS)

=> s l1 and ribosylation
        5143 RIBOSYLATION
          30 RIBOSYLATIONS
        5146 RIBOSYLATION
             (RIBOSYLATION OR RIBOSYLATIONS)
L2       835 L1 AND RIBOSYLATION

=> s l2 and ADP
       52454 ADP
          65 ADPS
       52487 ADP
             (ADP OR ADPS)
L3       768 L2 AND ADP

=> s l3 and polyphenols
        9141 POLYPHENOLS
L4         0 L3 AND POLYPHENOLS

=> s l3 and composition
      587900 COMPOSITION
      235499 COMPOSITIONS
      819660 COMPOSITION
             (COMPOSITION OR COMPOSITIONS)
     1148107 COMPN
      449414 COMPNS
     1399752 COMPN
             (COMPN OR COMPNS)
     1831873 COMPOSITION
             (COMPOSITION OR COMPN)
L5       48 L3 AND COMPOSITION

=> dis l5 30-48 bib abs

L5  ANSWER 30 OF 48  CAPLUS  COPYRIGHT 2002 ACS
AN  1990:403494  CAPLUS
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DN 113:3494
TI A1 adenosine receptor modulation of adenylyl cyclase of a deep-living teleost fish, Antimora rostrata
AU Siebenaller, Joseph F.; Murray, Thomas F.
CS Dep. Zool. Physiol., Louisiana State Univ., Baton Rouge, LA, 70803, USA
SO Biol. Bull. (Woods Hole, Mass.) (1990), 178(1), 65-73
CODEN: BIBUBX; ISSN: 0006-3185
DT Journal
LA English
AB Low temps. and high hydrostatic pressures are typical of the deep sea. The effects of these parameters on transmembrane signal transduction were detd. through a study of the A1 adenosine receptor-inhibitory guanine nucleotide binding protein-adenylyl cyclase system in brain membranes of the bathyal teleost fish, A. rostrata. The components of this system were analyzed at 5.degree. and 1 atm, and the role of the A1 receptor in the modulation of adenylyl cyclase was detd. The A1 selective radioligand N6-[3H]cyclohexyladenosine bound saturably, reversibly, and with high affinity. The dissocn. const. (Kd) of N6-[3H]cyclohexyladenosine estd. from kinetic measurements was 1.11 nM; the Kd detd. from equil. binding was 4.86 nM. [32P]ADP-ribosylation of brain membranes by pertussis toxin labeled substrates with apparent mol. masses of 39,000-41,000 Da. Basal adenylyl cyclase activity was inhibited in a concn.-dependent manner by the A1 adenosine receptor agonist N6-cyclopentyladenosine (50% inhibitory concn. = 5.08 .mu.M). The inhibition of adenylyl cyclase activity was dependent on GTP. Basal adenylyl cyclase activity was unaffected by 272 atm of pressure. The efficacy of 100 .mu.M N6-cyclopentyladenosine as an inhibitor of adenylyl cyclase was the same at atm. pressure and at 272 atm. The inhibition of adenylyl cyclase by the agonist 5'-N-ethylcarboxamidoadenosine (100 .mu.M) at 272 atm was twice that obsd. at atm. pressure. Although consideration of the effects of low temp. and high hydrostatic pressure on acyl chain order suggest that deep-sea conditions will perturb membrane function, signal transduction by the A1 receptor system of the bathyal fish A. rostrata is not disrupted by deep-sea conditions.

L5 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1989:403207 CAPLUS
DN 111:3207
TI Activation of a cytosolic ADP-ribosyltransferase by nitric oxide-generating agents
AU Bruene, Bernhard; Lapetina, Eduardo G.
CS Div. Cell Biol., Burroughs Wellcome Co., Research Triangle Park, NC, 27709, USA
SO J. Biol. Chem. (1989), 264(15), 8455-8
CODEN: JBCHA3; ISSN: 0021-9258

DT Journal
LA English
AB Na nitroprusside is a vasodilator and an inhibitor of platelet activation. It is thought that these effects are mediated by the spontaneous release of nitric oxide and stimulation of cytosolic guanylate cyclase. Sodium nitroprusside (5-200 .mu.M) greatly increased a cytosolic ADP-ribosyltransferase that ADP-ribosylates a sol. 39-kDa protein. This activity causes the mono-ADP-ribosylation of the 39-kDa protein, since digestion with snake venom phosphodiesterase releases 5'-AMP. This enzyme is present in platelets, brain, heart, intestine, liver, and lung. The effect of Na nitroprusside is not related to stimulation of sol. guanylate cyclase and the prodn. of cGMP because cGMP, dibutyryl cGMP, and 8-bromo-cGMP are ineffective. 3-morpholinosydnonimine (commonly known as SIN-1) (20-1000 .mu.g/mL), another compd. that acts through the spontaneous formation of nitric oxide as does Na nitroprusside, also stimulates ADP-ribosylation of the 39-kDa protein. Hb, which binds nitric oxide, inhibits Na nitroprusside's activation of the cytosolic ADP -ribosyltransferase. These studies demonstrate a novel action of nitric oxide related to the activation of an endogenous ADP -ribosyltransferase. The physiol. role of this ADP-ribosylation needs further exploration.

L5 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1989:401031 CAPLUS
DN 111:1031
TI Corticosterone differentially regulates the expression of Gs.alpha. and Gi.alpha. messenger RNA and protein in rat cerebral cortex
AU Saito, Naoaki; Guitart, Xavier; Hayward, Michael; Tallman, John F.; Duman, Ronald S.; Nestler, Eric J.
CS Sch. Med., Yale Univ., New Haven, CT, 06508, USA
SO Proc. Natl. Acad. Sci. U. S. A. (1989), 86(10), 3906-10
CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
AB The possibility that glucocorticoids regulate specific guanine nucleotide-binding regulatory proteins (G proteins) was investigated in rat cerebral cortex. Corticosterone was administered to normal and bilaterally adrenalectomized rats, and hormone regulation of individual G-protein subunits was investigated in cerebral cortex in 3 ways: immunoblot anal. of subunit protein, hybridization blot anal. of subunit mRNA, and ADP-ribosylation anal. of stimulatory G protein (Gs.alpha.) subunits. Chronic (7 days) corticosterone administration to normal rats increased levels of Gs.alpha. immunoreactivity, mRNA, and ADP-ribosylation but decreased levels of inhibitor G protein (Gi.alpha.) mRNA and

tended to decrease levels of Gi.alpha. immunoreactivity. In contrast, levels of Go.alpha. and G.beta. immunoreactivity and mRNA were not influenced by corticosterone treatments. In adrenalectomized rats, corticosterone treatment produced a 25-50% increase in the levels of Gs.alpha. immunoreactivity, mRNA, and ADP-ribosylation , whereas the hormone produced a 20-35% decrease in the levels of Gi.alpha. immunoreactivity and mRNA. Adrenalectomy, without corticosterone replacement, produced the opposite effects on Gs.alpha. and Gi.alpha. compared to sham-operated controls, indicating that these G proteins are regulated by this class of steroid hormone under physiol. conditions in vivo. Evidently, specific G-protein subunits, namely, Gs.alpha. and Gi.alpha., are under the coordinated control of glucocorticoids in rat brain and G proteins are physiol. targets of glucocorticoids in vivo. Possible roles played by these G-protein responses in mediating the effects of glucocorticoids on brain function are discussed.

L5 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1989:228994 CAPLUS
DN 110:228994
TI An endogenous inhibitor of the ADP-ribosylation of GTP-binding proteins by pertussis toxin is present in bovine brain
AU Hara-Yokoyama, Miki; Furuyama, Shunsuke
CS Sch. Dent., Nihon Univ., Matsudo, 271, Japan
SO Biochem. Biophys. Res. Commun. (1989), 160(1), 67-71
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English
AB The ADP-ribosylation of GTP-binding proteins (G-proteins) catalyzed by pertussis toxin was inhibited by endogenous inhibitor activity in the membrane ext. of bovine brain. Most of the activity appeared in the fractions eluted from a DEAE-Sephacel column by 0.5M NaCl. The activity was heat-stable and sensitive to Pronase K. Apparently, there is an endogenous inhibitor of pertussis toxin in bovine brain.

L5 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:488403 CAPLUS
DN 109:88403
TI Endogenous inhibitor of the ADP-ribosylation (a) G-protein(s) as catalyzed by pertussis toxin is present in rat liver
AU Hara-Yokoyama, Miki; Furuyama, Shunsuke
CS Sch. Dent., Nihon Univ., Chiba, 271, Japan
SO FEBS Lett. (1988), 234(1), 27-30
CODEN: FEBLAL; ISSN: 0014-5793

DT Journal
LA English
AB The inhibitor activity of the ADP-ribosylation of (a) G-protein(s) as catalyzed by pertussis toxin was found in the membrane ext. of rat liver. the fractions of DEAE-Sephacel column chromatog. at 50-120 mM NaCl. The inhibitor activity was found in the fractions of DEAE-Sephacel column chromatog. at 50-120 mM NaCl. The inhibitor activity was not due to the degrdn. of NAD nor to the reverse reaction of pertussis toxin (removal of incorporated ADP-ribose). The present result suggested the presence of an endogenous inhibitor of the ADP-ribosylation reaction (endogenous ADP-ribosyltransferase inhibitor) of (a) G-protein(s).

L5 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:452177 CAPLUS
DN 109:52177
TI ADP-ribosylation of highly purified rat brain mitochondria
AU Masmoudi, A.; Islam, F.; Mandel, P.
CS Cent. Neurochim., CNRS, Strasbourg, Fr.
SO J. Neurochem. (1988), 51(1), 188-93
CODEN: JONRA9; ISSN: 0022-3042
DT Journal
LA English
AB Highly purified synaptic and nonsynaptic mitochondria were prepd. from rat brain, and their ADP-ribosyltransferase and NAD glycohydrolase activities were investigated. There is no significant difference in ADP-ribosyltransferase activity between these 2 types of subcellular prepns. However, NAD glycohydrolase activity was much higher in nonsynaptic mitochondria. The specific activity of both enzymes was investigated in the presence of the inhibitor nicotinamide, its analog (3-aminobenzamide), or other adenine nucleotides (i.e. ATP or ADP-ribose). The inhibitory effect of nicotinamide or 3-aminobenzamide on ADP-ribosyltransferase was weak compared with their effect on NAD glycohydrolase activity. However, ADP -ribose and ATP were more effective in inhibiting ADP -ribosyltransferase. Thus, ADP-ribosyltransferase activity is in rat brain mitochondria. When NAD glycohydrolase was inhibited totally by nicotinamide, the transfer of ADP-ribose from NAD to mitochondrial proteins still occurred. The chain length detns. show that the linkage of ADP-ribose to mitochondrial proteins is oligomeric.

L5 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:401129 CAPLUS

DN 109:1129
TI Coupling of inhibitory GTP binding protein to somatostatin receptors on rat cerebrocortical membranes and characterization of subunit structure of the receptor
AU Nagao, Munehiko
CS Sch. Med., Kobe Univ., Kobe, Japan
SO Kobe Daigaku Igakubu Kiyo (1987), 48(3), 175-84
CODEN: KDIKAX; ISSN: 0075-6431
DT Journal
LA Japanese
AB Guanine nucleotides inhibited the binding of (125I-Tyr1)somatostatin (I) to the membranes in a dose-dependent manner. The most potent inhibitor was the GTP analog guanylyl imidodiphosphate (Gpp(NH)p), followed by GTP and GMP. Gpp(NH)p produced its max. inhibition of binding at 10 .mu.M, permitting 32% of the binding of control samples. Scatchard anal. of the labeled I binding revealed that the decrease in the binding was due to the redn. of the binding affinity for I. I binding to the membranes also decreased after membrane were treated with various concn. of Islet Activating Protein (IAP), which had been activated with 50 mM dithiothreitol at 37.degree. for 40 m. This decrease was also dose dependent. The max. decrease produced by IAP (100 .mu.g/mL) reduced the I binding to 38% of control values. Exposure of membrane to IAP and NAD caused the ADP-ribosylation of a membrane protein with a mol. wt. = 41,000. Gpp(NH)p further decreased the I binding to IAP-pretreated cerebrocortical membranes. When the photoreactive crosslinking agent N-5-azo-2-nitrobenzoylozysuccimide was used to bind (125I-Tyr1)I to its receptors covalently, the hormone was specifically assocd. with a 72,000-mol.-wt. protein. This protein, however, was less radioactive in membranes pretreated with IAP or in the presence of Gpp(NH)p. Finally, pretreating membranes with IAP blocked the ability of I to inhibit the adenylate cyclase activity increase produced by VIP. I in the cerebral cortex probably regulated the adenylate cyclase enzyme system via inhibitory GTP-binding protein and the cerebrocortical I receptor had an apparent size of 70,000 daltons.

L5 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:90541 CAPLUS
DN 108:90541
TI ADP-ribosyltransferase is highly conserved: purification and characterization of ADP-ribosyltransferase from a fish and its comparison with the human enzyme
AU Burtscher, Helmut J.; Schneider, Rainer; Klocker, Helmut; Auer, Bernhard; Hirsch-Kauffmann, Monica; Schweiger, Manfred
CS Naturwiss. Fak., Univ. Innsbruck, Innsbruck, A-6020, Austria
SO J. Comp. Physiol., B (1987), 157(5), 567-72
CODEN: JPBPDL

DT Journal
LA English
AB An ADP-ribosyltransferase (EC 2.4.2.30) was purified from trout (Salmo trutta faris) liver by affinity chromatog. and characterized. The 11,700-fold purified activity shows a major protein band at a mol. mass of 75,000 kilodaltons (kDa) in a SDS-polyacrylamide gel. In situ reactivation of SDS gels showed the 75,000 kDa protein to be enzymically active, and addnl. enzymically active bands were obsd. at mol. masses of 115,000, 90,000, and 87,000 kDa. The enzyme is capable of poly-ADP-ribosylation. It crossreacts with affinity purified antibodies raised against human poly(ADP-ribose)synthetase and, except for the temp. optimum, its properties strongly resemble the mammalian enzymes, indicating the conserved character of nuclear ADP-ribosyltransferases. The trout enzyme is DNA- and histone-dependent, has an optimal pH between 8 and 9 and an apparent Km for NAD+ of 24 .mu.M. The temp. optimum is 10.degree. compared with 25.degree. for the human enzyme. Known ADP-ribosyltransferase inhibitors also inhibit the enzyme from trout.

L5 ANSWER 38 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:435531 CAPLUS
DN 107:35531
TI Catalytic activities of synthetic octadeoxyribonucleotides as coenzymes of poly(ADP-ribose) polymerase and the identification of a new enzyme inhibitor site
AU Hakam, Alaeddin; McLick, Jerome; Buki, Kalman; Kun, Ernest
CS Sch. Med., Univ. California, San Francisco, CA, 94143-0130, USA
SO FEBS Lett. (1987), 212(1), 73-8
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
AB The catalytic activity of highly purified poly(ADP-ribose) polymerase was detd. at const. NAD concn. and varying concns. of sDNA (sDNA is an enzyme-assocd. DNA) or synthetic octadeoxyribonucleotides of differing compn. The coenzymic activities of deoxyribonucleotides were compared in 2 ways: (1) graphic presentation of the activation of poly(ADP-ribose) polymerase in the presence of a large concn. range of deoxyribonucleotides and (2) by calcg. the dissocn. const. (kD) for the deoxyribonucleotides. As detd. by method 1, automono-ADP-ribosylation of the enzyme protein at 25 nM NAD was maximally activated at 1:1 octamer/enzyme molar ratios by the octadeoxyribonucleotide derived from the regulatory region of SV40 DNA (duplex C). At a 0.4:1 sDNA/enzyme ratio, sDNA was the most active coenzyme for mono-ADP-ribosylation. At 200 .mu.M NAD, resulting in polymer synthesis and with histones as secondary polymer acceptors, duplex C was the most active coenzyme, and the octamer contg.

the steroid hormone receptor binding consensus sequence of DNA was a close 2nd, whereas sDNA exhibited an anomalous biphasic kinetics. The sDNA was effective on mono-ADP-ribosylation at a concn. 150-200-fold lower than on polymer formation. When comparison of deoxyribonucleotides was based on method 2 (kD values), by far the most efficiently binding coenzyme for both mono and polymer synthesis was sDNA, followed by duplex C, with (dA-dT)8 exhibiting the weakest binding. 6-Aminocoumarin competitively inhibited the coenzymic function of synthetic octadeoxyribonucleotides at const. concn. of NAD, thus identifying a new inhibitory site of poly(ADP-ribose) polymerase.

L5 ANSWER 39 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:190851 CAPLUS
DN 106:190851
TI Possible model of liver carcinogenesis using inhibitors of NAD+ ADP ribosyl transferase in rats
AU Konishi, Yoichi; Takahashi, Seiichi; Nakae, Dai; Uchida, Kazuhiko; Tsutsumi, Masahiro; Shiraiwa, Kazumi; Denda, Ayumi
CS Cancer Cent., Nara Med. Coll., Kashihara, 634, Japan
SO Toxicol. Pathol. (1986), 14(4), 483-8
CODEN: TOPADD; ISSN: 0192-6233
DT Journal
LA English
AB The response of cellular NAD+ [53-84-9] metab. to DEN [55-18-5] and(or) ABA [21293-29-8] and the carcinogenesis of the liver initiated by DEN and ABA were studied in rats. The liver NAD+ level was depleted by an i.p. injection of 20 mg or 200 mg/kg of DEN. ABA, administered i.p. at a dose of 600 mg/kg simultaneously with or 4 h after DEN, prevented the depletion of NAD+ by DEN. These biochem. findings correlated with the changes of conspicuous intranuclear immunofluorescence of poly(ADP-ribose) [26656-46-2]. When initiated by 20 mg/kg DEN and 600 mg/kg ABA and then processed to selection pressure, the liver was capable of developing hepatocellular carcinomas with or without phenobarbital promotion. Thus the inhibition of poly(ADP-ribosylation) might lead to irreversible initiation of liver carcinogenesis by DEN in rats.

L5 ANSWER 40 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:152138 CAPLUS
DN 106:152138
TI ADP-ribosyl transferase and NAD glycohydrolase activities in rat liver mitochondria
AU Masmoudi, Ahmed; Mandel, Paul
CS Cent. Neurochim., CNRS, Strasbourg, 67084, Fr.
SO Biochemistry (1987), 26(7), 1965-9
CODEN: BICHAW; ISSN: 0006-2960

DT Journal
LA English
AB ADP-ribosyltransferase (I) and NAD glycohydrolase (II) activities were estd. in mitochondria in mitoplasts as well as in other submitochondrial fractions. A high activity of these 2 enzymes was present in mitoplasts as compared to the outer membrane prepn. or intermembrane compartment. Inhibitor studies provided strong evidence for the involvement of I in the process of ADP-ribosylation of mitochondrial proteins. When II was blocked by nicotinamide or 3-aminobenzamide, the incorporation of ADP -ribose into mitochondrial proteins still occurred. I activity could also be detected when II was sepd. by hydroxylapatite chromatog. The protein-linked ADP-ribose moiety appeared to be an oligomer in mitochondria.

L5 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:150273 CAPLUS
DN 106:150273
TI Neuropeptide Y inhibits cardiac adenylate cyclase through a pertussis toxin-sensitive G protein
AU Kassis, Shouki; Olasmaa, Marjut; Terenius, Lars; Fishman, Peter H.
CS Membrane Biochem. Sect., Natl. Inst. Neurol. Commun. Dis. Stroke, Bethesda, MD, 20892, USA
SO J. Biol. Chem. (1987), 262(8), 3429-31
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Neuropeptide Y [82785-45-3], a major neuropeptide and potent vasoconstrictor, inhibited (-)-isoproterenol [51-31-0]-stimulated adenylate cyclase [9012-42-4] activity in cultured rat atrial cells as well as in atrial membranes. Prior treatment of the cells with pertussis toxin blocked the inhibitory action of neuropeptide Y. Pertussis toxin is known to uncouple the receptors for other inhibitors of adenylate cyclase by ADP-ribosylation of the .alpha.-subunit of Gi, the inhibitory guanine nucleotide-binding component of adenylate cyclase. The toxin specifically catalyzed the ADP-ribosylation of a 41-kilodalton atrial membrane protein which corresponded to the Gi subunit. Thus, neuropeptide Y may mediate some of its physiol. effects through specific receptors linked to the inhibitory pathway of adenylate cyclase.

L5 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:63503 CAPLUS
DN 106:63503
TI NADP+ enhances cholera and pertussis toxin-catalyzed ADP-ribosylation of membrane proteins

AU Kawai, Yumiko; Whitsel, Carol; Arinze, Ifeanyi J.
CS Dep. Biochem., Meharry Med. Coll., Nashville, TN, USA
SO J. Cyclic Nucleotide Protein Phosphorylation Res. (1986), 11(4), 265-74
CODEN: JCNREV; ISSN: 0746-3898
DT Journal
LA English
AB [32P]ADP-ribosylation of membrane proteins catalyzed by either cholera toxin or pertussis toxin was markedly enhanced by NADP. The effect was concn.-dependent; with 20 .mu.M [32P]NAD as a substrate, maximal enhancement was obtained at 0.5-1.0 mM NADP for rabbit and guinea pig liver membranes and 0.1 mM NADP for human erythrocyte membranes. NADP appeared to act by inhibiting the degrdn. of NAD by NAD glycohydrolase (NADase) present in membrane prepns., probably as an alternate substrate for the enzyme. Among the enzyme inhibitors tested (NADP, isonicotinic acid hydrazide, imidazole, nicotinamide, L-arginine Me ester, and HgCl2), NADP was the most effective and, at 10 mM, inhibited hepatic NADase activity by .apprx.90%. The effect of NADP was much greater than that of other known effectors of ADP-ribosylation such as Mg2+ and phosphate, or the NADase inhibitors, isonicotinic acid hydrazide and isonicotinamide. In membranes which contain substantial activities of NADase, the inclusion of NADP in the assay system is necessary to achieve maximal ADP-ribosylation of membrane proteins.

L5 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1985:518729 CAPLUS
DN 103:118729
TI Amino acid sequence of histone H1 at the ADP-ribose-accepting site and ADP-ribose.cntdot.histone-H1 adduct as an inhibitor of cyclic-AMP-dependent phosphorylation
AU Ushiroyama, Takahisa; Tanigawa, Yoshinori; Tsuchiya, Mikako; Matsuura, Ryoji; Ueki, Minoru; Sugimoto, Osamu; Shimoyama, Makoto
CS Dep. Biochem., Shimane Med. Univ., Izumo, 693, Japan
SO Eur. J. Biochem. (1985), 151(1), 173-7
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB The ADP-ribosylation site of histone H1 from calf thymus by purified hen liver nuclear ADP-ribosyltransferase was detd. and effects of the ADP-ribose/histone H1 adduct on cAMP-dependent phosphorylation of the histone H1 were investigated. ADP-ribosylated histone H1 was prepd. by incubation of histone H1, 1 mM [adenylate-32P]NAD, and the purified ADP -ribosyltransferase. N-Bromosuccinimide-directed bisection of ADP -ribosylated histone H1 showed that the N-terminal fragment (mol. wt. = 6000) was modified and contained serine-38, the site of phosphorylation by

cAMP-dependent protein kinase. Digestion of the N-terminal fragment with cathepsin D and trypsin and purifn. by HPLC yielded a radiolabeled single peptide corresponding to residues 29-34 of histone H1 contg. the arginine residue which is the ADP-ribosylation site.
ADP-ribosylation of histone H1 occurs at arginine-34, to the N-terminal side of phosphate-accepting serine-38. Phosphorylation of histone H1 from calf thymus by cAMP-dependent protein kinase was markedly reduced when histone H1 was ADP-ribosylated. Kinetic studies of phosphorylation revealed that ADP-ribosylated histone H1 was a linear competitive inhibitor of histone H1 and a linear noncompetitive inhibitor of ATP in the phosphorylation reaction.

L5 ANSWER 44 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1984:623362 CAPLUS
DN 101:223362
TI Conversion of adrenergic mechanism from an .alpha.- to a .beta.-type during primary culture of rat hepatocytes. Accompanying decreases in the function of the inhibitory guanine nucleotide regulatory component of adenylate cyclase identified as the substrate of islet-activating protein
AU Itoh, Hiroshi; Okajima, Fumikazu; Ui, Michio
CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
SO J. Biol. Chem. (1984), 259(24), 15464-73
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Adrenergic mechanism for phosphorylase [9035-74-9] activation was gradually converted from an .alpha.1- to a .beta.2-type during primary culture of rat hepatocytes. .beta.2-Receptor-mediated cAMP [60-92-4] generation was also much greater in 8-h cultured cells than in fresh cells. Incubation of hepatocyte membranes with [.alpha.-32P]NAD and the preactivated A-protomer (an active component) of islet-activating protein (IAP) resulted in the ADP-ribosylation of a specific IAP substrate protein (mol. wt. = 41,000). This ADP-ribosylation diminished progressively when the membrane-donor hepatocytes were cultured. The early diminution was interfered with by the addn. of nicotinamide or isonicotinamide, a potent inhibitor of ADP-ribosyltransferase, to the culture medium. The decrease of the IAP substrate was well correlated with the potentiation of .beta.-adrenergic functions under various conditions of culture. .beta.-Receptor-mediated activation of GTP-dependent membrane adenylate cyclase [9012-42-4] was, but glucagon-induced activation was not enhanced by either prior culture of hepatocytes or prior exposure to membranes to the A-protomer of IAP. There was no further enhancement, however, when membranes from cultured cells were exposed to the active toxin. Thus, the IAP-susceptible inhibitory guanine nucleotide-regulatory protein is coupled to .beta.-adrenergic receptors in such a manner as to reduce the

degree of activation of cyclase, and the decrease in this IAP substrate may be responsible, at least partly, for development of .beta.-receptor functions during culture of hepatocytes. Its possible relation to accompanying inhibition of .alpha.1-receptor functions is discussed.

L5 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1983:121924 CAPLUS
DN 98:121924
TI Activation of poly(ADP-ribose) polymerase by seminal ribonuclease
AU Leone, Enzo; Farina, Benedetta; Mennella, Maria Rosaria Faraone; Mauro, Anna
CS Fac. Sci., Univ. Napoli, Naples, Italy
SO Quad. Ric. Sci. (1982), 110(Biol. Riprod.), 301-5
CODEN: QRSCAJ; ISSN: 0556-9664
DT Journal
LA Italian
AB Bull seminal and pancreatic RNases are able to accept ADP-ribose residues in the reaction catalyzed by poly(ADP-ribose) polymerase (I). The seminal enzyme is a better substrate in this reaction. Parallel to ADP-ribosylation of RNases, an inhibition of their activity is obsd., whereas I shows an apparent stimulation. Heat-denatured RNase, as well as alkali-inactivated enzyme, are also probably ADP-ribosylated, although to a lesser degree than the active enzyme. Nicotinamide, an inhibitor of I, also inhibits ADP-ribosylation of RNase.

L5 ANSWER 46 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1983:2153 CAPLUS
DN 98:2153
TI ADP-ribosylation of brain synaptosomal proteins correlates with adenylate cyclase activation
AU Berthillier, Gisele; D'Alayer, Jacques; Monneron, Ariane
CS Dep. Biol. Mol., Inst. Pasteur, Paris, 75724/15, Fr.
SO Biochem. Biophys. Res. Commun. (1982), 109(2), 297-304
CODEN: BBRCA9; ISSN: 0006-291X
DT Journal
LA English
AB ADP-ribosylation of the adenylate cyclase G/F regulatory subunit by cholera toxin is a major tool for the study of this enzyme. Investigation of the brain enzyme has been hampered up to now by the failure to demonstrate cholera toxin-dependent ADP-ribosylation of membrane-bound proteins. Synaptosomes prepd. by flotation from fresh brains homogenized in the presence of protease inhibitors yielded membranes of which several proteins could be ADP-ribosylated by the toxin. The same membranes subjected to

mild proteolysis could not be ADP-ribosylated. Adenylate cyclase activation and ADP-ribosylation were simultaneous processes. The major labeled species was of mol. wt. 47,000. It was solubilized by Lubrol-PX, together with other labeled polypeptides. The 47,000-dalton protein was found both in the 3 S region of sucrose gradients and in the adenylate cyclase-contg. fraction (9.1 S).

L5 ANSWER 47 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1982:404001 CAPLUS
DN 97:4001
TI ADP-ribosyltransferase activity in cultured hepatocytes. Interactions with DNA repair
AU Althaus, Felix R.; Lawrence, Susan D.; Sattler, Gerald L.; Pitot, Henry C.
CS Med. Sch., Univ. Wisconsin, Madison, WI, 53706, USA
SO J. Biol. Chem. (1982), 257(10), 5528-35
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB A rapid increase in ADP-ribosyltransferase (I) activity was obsd. when freshly isolated hepatocytes derived from adult rats were established in primary monolayer culture. (ADP -ribose)n-degrading activity remained const. over a period of 48 h of culture. Inhibition of I activity with pyridine derivs., 3-aminobenzamide, theophylline, or thymidine, was accompanied by an enhanced DNA repair synthesis in response to the direct-acting carcinogen Me methanesulfonate or UV irradn. Three aminobenzamides differing only in the position of the amino group exhibited the same structure-activity relation in regard to their action on DNA repair synthesis and I. Spermine treatment of hepatocytes apparently had an inverse effect on both these cellular functions. The removal of DNA strand breaks following Me methanesulfonate treatment was accelerated by inhibitors of I. Apparently, ADP-ribosylation interacts with late stages in the process of DNA repair. This interaction apparently is dependent on the nature of damage imposed on chromatin since repair synthesis in response to a no. of carcinogens is unaffected by inhibitors of I.

L5 ANSWER 48 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1981:473294 CAPLUS
DN 95:73294
TI Benzamide and its derivatives inhibit nicotinamide methylation as well as ADP-ribosylation
AU Johnson, George S.
CS Lab. Mol. Biol., Natl. Cancer Inst., Bethesda, MD, 20205, USA
SO Biochem. Int. (1981), 2(6), 611-17
CODEN: BIINDF

DT Journal
LA English
AB Benzamide and its derivs., known inhibitors of poly(ADP -ribose) synthetase, inhibited nicotinamide methyltransferase [9029-74-7] in liver homogenates and in intact normal rat kidney cells. Thus, these agents are not selective inhibitors of poly(ADP -ribose) synthetase as previously supposed.

=> dis hist

(FILE 'HOME' ENTERED AT 09:17:16 ON 16 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:17:28 ON 16 MAY 2002
L1 619425 S INHIBITOR
L2 835 S L1 AND RIBOSYLATION
L3 768 S L2 AND ADP
L4 0 S L3 AND POLYPHENOLS
L5 48 S L3 AND COMPOSITION

=> s l3 and anthocyanidins
790 ANTHOCYANIDINS
L6 0 L3 AND ANTHOCYANIDINS

=> s l3 and cyanidins
69 CYANIDINS
L7 0 L3 AND CYANIDINS

=> diarrhea
DIARRHEA IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s diarrhea
12142 DIARRHEA
106 DIARRHEAS
L1 12193 DIARRHEA
(DIARRHEA OR DIARRHEAS)

=> s l1 and prevent
172510 PREVENT
73805 PREVENTS
241123 PREVENT
(PREVENT OR PREVENTS)
L2 315 L1 AND PREVENT

=> s l2 and proanthocyanidin
983 PROANTHOCYANIDIN
1800 PROANTHOCYANIDINS
1921 PROANTHOCYANIDIN
(PROANTHOCYANIDIN OR PROANTHOCYANIDINS)
L3 0 L2 AND PROANTHOCYANIDIN

=> file medline

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		5.67	5.88

FILE 'MEDLINE' ENTERED AT 16:00:12 ON 17 MAY 2002

FILE LAST UPDATED: 16 MAY 2002 (20020516/UP). FILE COVERS 1958 TO DATE.

On April 22, 2001, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE now contains IN-PROCESS records. See HELP CONTENT for details.

MEDLINE is now updated 4 times per week. A new current-awareness alert frequency (EVERYUPDATE) is available. See HELP UPDATE for more information.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965.
Enter HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the
Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE
SUBSTANCE IDENTIFICATION.

```
=> s l1
      42887 DIARRHEA
        400 DIARRHEAS
L4    42942 DIARRHEA
            (DIARRHEA OR DIARRHEAS)

=> s l4 and l2
      42887 DIARRHEA
        400 DIARRHEAS
      42942 DIARRHEA
            (DIARRHEA OR DIARRHEAS)
     102468 PREVENT
      28365 PREVENTS
     127408 PREVENT
            (PREVENT OR PREVENTS)
L5      783 L4 AND L2

=> s l5 and l3
      42887 DIARRHEA
        400 DIARRHEAS
      42942 DIARRHEA
            (DIARRHEA OR DIARRHEAS)
     102468 PREVENT
      28365 PREVENTS
     127408 PREVENT
            (PREVENT OR PREVENTS)
        146 PROANTHOCYANIDIN
        141 PROANTHOCYANIDINS
        201 PROANTHOCYANIDIN
            (PROANTHOCYANIDIN OR PROANTHOCYANIDINS)
L6        0 L5 AND L3

=>
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